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1-7 Yukiqava-otsukamachi. Ota-ku, Tokyo 145-0067, Japan Tel: (03) 5499-4531

ALPINE ELECTRONICS OF AMERICA, INC. 19145 Gramercy Place, Torrance, California 90501, U.S.A. Tel: 1-800-ALPINE-1 (1-800-257-4631)

ALPINE ELECTRONICS OF CANADA, INC. 777 Supertest Road, Toronto, Ontario M3J 2M9, Canada Tel: (416) 736-6211

ALPINE ELECTRONICS MARKETING, INC. ALPINE ELECTRONICS OF AUSTRALIA PTY. LTD. 161-165 Princes Highway, Hallam Victoria 3803, Australia Tel: (03) 8787-1200

> ALPINE ELECTRONICS DE ESPAÑA, S.A. Portal de Gamarra 36, Pabellón 32 01013 Vitoria (Álava). APDO. 133, Spain Tel: (945) 283-588

ALPINE ELECTRONICS GmbH Wilhelm-Wagenfele-Straße 1-3 80807 München, Germany Tel: (089) 324-2640

ALPINE ELECTRONICS (Benelux) GmbH Leuvensesteenweg 510-B6 1930 Zaventem, Belgium Tel: 02-7251315

ALPINE ELECTRONICS OF U.K., LTD. Alpine House Earlplace Business Park, Fletchamstead Highway, Coventry CV4, 9TW United Kingdom Tel: (2476) 719-500

ALPINE ELECTRONICS FRANCE S.A.R.L. 98. Rue de la Belle Etoile, Z.I. Paris Nord. B.P. 50016, 95945, Roissy Charles de Gaulle Cédex, France Tel: (01) 4863-8989

ALPINE ITALIA S.p.A. Viale C. Colombo 8, 20090 Trezzano Sul Naviglio (MI), Italy Tel: (02) 484-781

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# TYPE-R SUBWOOFER HAUT-PARLEUR D'EXTRÊMES GRAVES TYPE-R **APPLICATION GUIDE GUIDE D' APPLICATION**

SWR-12D4

12 Inch Dual Voice Coil Subwoofer  $(4\Omega)+(4\Omega)$ Haut-parleur d'extrêmes graves à double bobine 12 po  $(4\Omega)+(4\Omega)$ 

**SWR-12D2** 

12 Inch Dual Voice Coil Subwoofer  $(2\Omega)+(2\Omega)$ Haut-parleur d'extrêmes graves à double bobine 12 po  $(2\Omega)+(2\Omega)$ 

**SWR-10D4** 

10 Inch Dual Voice Coil Subwoofer  $(4\Omega)+(4\Omega)$ Haut-parleur d'extrêmes graves à double bobine 10 po  $(4\Omega)+(4\Omega)$ 

**SWR-10D2** 

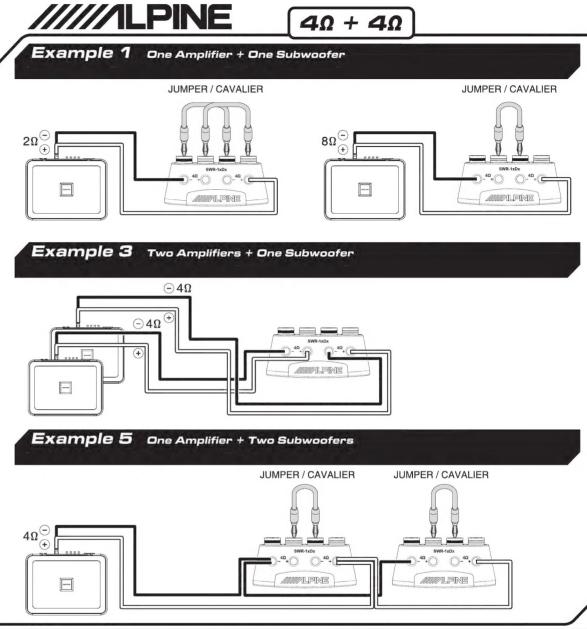
10 Inch Dual Voice Coil Subwoofer  $(2\Omega)+(2\Omega)$ Haut-parleur d'extrêmes graves à double bobine 10 po  $(2\Omega)+(2\Omega)$ 

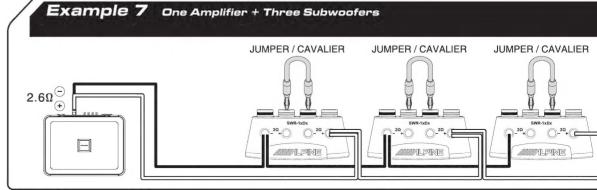
| Ggneral Specifications |                            |  |                 |  |
|------------------------|----------------------------|--|-----------------|--|
| Sealed                 | Taille                     |  |                 |  |
| Frequency Respons      | se Response en Fré         |  | équence         |  |
| Power Range            | Plage de Puissa            |  | sance           |  |
| Power Handling         | Puisance Admis             |  | ssible          |  |
| Magnet Weight          | Poids de l'aim             |  | nant            |  |
| Voice Coil Diamete     | er Diamètre de la b        |  | bobine          |  |
| Thiel-Small Parameters |                            |  |                 |  |
| Sensitivity<br>(1W/1m) | Sensibilité<br>(1W/1m)     |  | SPL             |  |
| DC Resistance          | Résistance CC              |  | Re              |  |
| Inductance             | Inductance                 |  | Le              |  |
| Free Air Resonance     | Résonance à l'air<br>libre |  | Fs              |  |
| Equivalent Stiffness   | Raiduer équivalente        |  | Vas             |  |
| Mechanical Q           | Q Méchanique               |  | Qms             |  |
| Electrical Q           | Q Électrique               |  | Qes             |  |
| Total Q                | Q Total                    |  | Qts             |  |
| Cone Area              | Surface du<br>diaphragme   |  | Sd              |  |
| Linear Excursion       | Displacement<br>Linéare    |  | Xmax<br>(1-way) |  |
| Mechanical Travel      | Déplacement 2<br>Mécanique |  | Xmech<br>(P-P)  |  |

Note: Specifications subject to change without notice

|               | Ту               | pe-R              |                        |  |
|---------------|------------------|-------------------|------------------------|--|
| SWR-10D2      | SWR-10D4         | SWR-12D2 SWR-12D4 |                        |  |
| 2Ω+2Ω         | 4Ω+4Ω            | 2Ω+2Ω             | <b>4</b> Ω <b>+4</b> Ω |  |
| 10            | 0"               | 12                | 2"                     |  |
| 26Hz-         | 200Hz            | 24Hz-200Hz        |                        |  |
|               | 300W-1000W       | RMS (efficace)    |                        |  |
| 1000W         | RMS (efficace) / | 3000W PEAK (de    | e crête)               |  |
| 111 oz 127 oz |                  | oz oz             |                        |  |
|               | 65.5 mr          | m (2.6")          |                        |  |
|               |                  |                   |                        |  |
| 82 dB         | 82.1 dB          | 84.7 dB           | 84.9 dB                |  |
| 1.95Ω+1.95Ω   | 3.8Ω+3.8Ω        | 1.95Ω+1.95Ω       | 3.8Ω+3.8Ω              |  |
| 1.89 mH       | 3.04 mH          | 2.23 mH           | 3.33 mH                |  |
| 31 Hz         | 32 Hz            | 27 Hz             | 28 Hz                  |  |
| 18 L          |                  | 46                | L                      |  |
| 7.84          | 7.05             | 7.1               | 6.04                   |  |
| 0.54          | 0.59             | 0.47              | 0.52                   |  |
| 0.51          | 0.55             | 0.44              | 0.48                   |  |
| 333cm²        |                  | 479               | cm <sup>2</sup>        |  |
| 20 mm         |                  |                   |                        |  |
| 70 mm         |                  | 72 ו              | mm                     |  |

2Ω⊕ 2.6Ω<sub>(+)</sub>



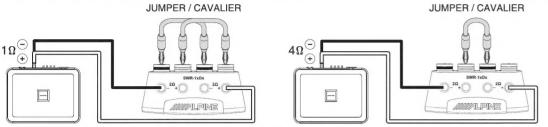


DIAGRAMS



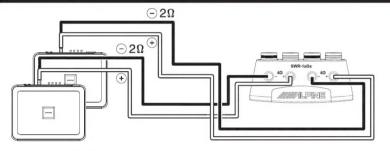
SWR-10D4 / SWR-12D4 SWR-10D2 / SWS-12D2

## Example 2 One Amplifier + One Subwoofer

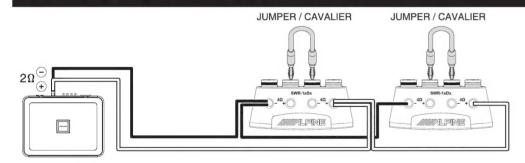


Caution ! Consult amplifier owner's manual for  $1\Omega$  connection. Attention : lire le manuel de l'amplificateur pour la connexion à  $1\Omega$  .

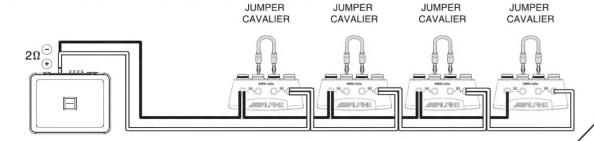
#### Example 4 Two Amplifiers + One Subwoofer



#### Example 6 One Amplifier and Two Subwoofers



## Example 8 One Amplifier + Four Subwoofers



TYPE-R WIRING WORKSHEET CÂBLAGE POUR TYPE-R

|                          |                              | SWR-10D2/D4                                    | SWR-12D2/D4                                    |
|--------------------------|------------------------------|--|--|
| Sealed Box Range         | Net Internal Volume          | 0.4-0.85 ft <sup>3</sup>                       | 0.55-1.0 ft <sup>3</sup>                       |
| Recommened<br>Sealed Box | External Box Dimensions      | 12"x12"x10.5"                                  | 14"x14"x11"                                    |
|                          | Gross Internal Volume        | 0.58 ft <sup>3</sup>                           | 0.85 ft <sup>3</sup>                           |
|                          | Net Internal Volume          | 0.50 ft <sup>3</sup>                           | 0.75 ft <sup>3</sup>                           |
|                          | F3, Qtc                      | D2: 46 Hz, 0.74<br>D4: 44 Hz, 0.79             | D2: 45 Hz, 0.75<br>D4: 45 Hz, 0.81             |
| Vented Box Range         | Net Internal Volume          | 0.75-1.3 ft <sup>3</sup>                       | 1.0-1.5 ft <sup>3</sup>                        |
|                          | Tuning                       | 35-39 Hz                                       | 32-37 Hz                                       |
| Recommened<br>Vented Box | External Box Dimensions      | 23" x 12" x 11.5"                              | 23" x 12.5" x 14"                              |
|                          | Gross Internal Volume        | 1.3 ft <sup>3</sup>                            | 1.71 ft <sup>3</sup>                           |
|                          | Aire de l'évent (dimensions) | 10 in² (10"x1")                                | 12.5 in <sup>2</sup> (12.5"x1")                |
|                          | Gross Internal Volume        | 20"  | 19"  |
|                          | Vent Displacement            | 0.2 ft <sup>3</sup>                            | 0.23 ft <sup>3</sup>                           |
|                          | Net Internal Volume (Vb)     | 1.0 ft <sup>3</sup>                            | 1.38 ft <sup>3</sup>                           |
|                          | F3, ripple, Fb               | D2: 29Hz, 6.1dB, 36Hz<br>D4: 28Hz, 5.8dB, 36Hz | D2: 29Hz, 4.6dB, 35Hz<br>D4: 29Hz, 4.4dB, 35Hz |

#### Notes:

- 1) Recommended enclosure net Internal volume is based upon 3/4" (19mm) MDF enclosure construction.
- 2) Consult the table below for alternative enclosure net internal volume calculation.

| Front Mount Displacement* (magnet in)    | -0.08 ft³             | -0.10 ft <sup>3</sup> |
|--|-----------------------|-----------------------|
| Reverse Mount Added Volume* (magnet out) | +0.05 ft <sup>3</sup> | +0.09 ft <sup>3</sup> |

<sup>\*</sup>Based upon 3/4" (19mm) baffle thickness, with opening cut approximately to gasket inner diameter

|                                  |  | SWR-10D2/D4                                    | SWR-12D2/D4                                    |
|----------------------------------|--|--|--|
| Gamme Box Sealed                 | Net volume interne                     | 0.4-0.85 pi <sup>3</sup>                       | 0.55-1.0 pi <sup>3</sup>                       |
| recommened<br>Boîte Scellé       | Dimensions de la boîte extérieures     | 12 po x 12 po x 10.5 po                        | 14 po x 14 po x 11 po                          |
|                                  | Volume intérieur brut                  | 0.58 pi <sup>3</sup>                           | 0.85 pi <sup>3</sup>                           |
|                                  | Volume intérieur Net ***               | 0.50 pi <sup>3</sup>                           | 0.75 pi <sup>3</sup>                           |
|                                  | F3, Qtc                                | D2: 46 Hz, 0.74<br>D4: 44 Hz, 0.79             | D2: 45 Hz, 0.75<br>D4: 45 Hz, 0.81             |
| Gamme charge<br>bass-reflex      | Volume net interne                     | 0.75-1.3 pi <sup>3</sup>                       | 1.0-1.5 pi <sup>3</sup>                        |
|                                  | mise au point                          | 35-39Hz  | 32-37Hz  |
| recommened<br>charge bass-reflex | Dimensions extérieures                 | 23 po x 12 po x 11.5 po                        | 23 po x 12.5 po x 14 po                        |
|                                  | Volume intérieur brut                  | 1.3 pi <sup>3</sup>                            | 1.71 pi <sup>3</sup>                           |
|                                  | Aire de l'évent (dimensions)           | 10 in² (10 po x 1 po)                          | 12.5 in² (12.5 po x 1 po)                      |
|                                  | Longueur de l'évent                    | 20 po  | 19 po  |
|                                  | déplacement de l'évent                 | 0.2 pi <sup>3</sup>                            | 0.23 pi <sup>3</sup>                           |
|                                  | Volume intérieur Net (Vb)***           | 1.0 pi <sup>3</sup>                            | 1.38 pi <sup>3</sup>                           |
|                                  | F <sub>3</sub> , crête, F <sub>b</sub> | D2: 29Hz, 6.1dB, 36Hz<br>D4: 28Hz, 5.8dB, 36Hz | D2: 29Hz, 4.6dB, 35Hz<br>D4: 29Hz, 4.4dB, 35Hz |

#### Notes

- 1) Recommandé enceinte volume net interne est basée sur 3/4 "(19mm) de construction boîtier en MDF.
- 2) Consulter le tableau ci-dessous pour le calcul de filet d'enclos alternative volume interne.

| Avant le déplacement du Mont * (aimant)     | -0.08 ft <sup>3</sup> | -0.10 ft <sup>3</sup> |
|---|-----------------------|-----------------------|
| Inverser Volume mont Ajouté * (des aimants) | +0.05 ft <sup>3</sup> | +0.09 ft <sup>3</sup> |

<sup>\*</sup> Sur la base de l'épaisseur du déflecteur 3/4" (19mm), avec une ouverture coupée à peu près à joint diamètre intérieur

